ment as well as anginal pains. Rate of arrhythmia at discharge was minimal in streptokinase group. Alteplase required much more costs than streptokinase or treatment without thrombolytical therapy. ICER was 252,454.31 rubles ($7889.20) per absence of heart failure at discharge for alteplase vs streptokinase, and 166,720.5 rubles ($5210.02) for alteplase vs treatment without thrombolytical therapy. Still streptokinase was more cost-effective vs treatment without thrombolytical therapy: ICER was 4038.76 rubles ($126.21) per absence of heart failure at discharge. **CONCLUSION:** Alteplase is less cost-effective thrombolytical strategy for MI than streptokinase in spite of higher effectiveness.

PCV10

THE COST-EFFECTIVENESS OF CLOPIDOGREL IN PATIENTS UNDERGOING PERCUTANEOUS CORONARY INTERVENTION IN SWEDEN: AN ANALYSIS OF PCI-CURE

Lindgren P[1], Stenestrand U[2], Malmberg K[3], Jönsson B[4]
[1]Stockholm Health Economics, Stockholm, Sweden; [2]University Hospital of Linköping, Linköping, Sweden; [3]Karolinska Hospital, Stockholm, Sweden; [4]Stockholm School of Economics, Stockholm, Sweden

OBJECTIVES: We assessed the long-term cost-effectiveness of the use of clopidogrel on top of standard therapy (including aspirin) in comparison with ASA only in patients undergoing percutaneous coronary interventions in Sweden. **METHODS:** A Markov model was developed. Transition probabilities for relevant events were estimated based on RIKS-HIA, a register on patients treated in the coronary care units at 74 (out of 78) hospitals throughout Sweden. Patients were assumed to be treated for one year with an effect based on the PCI-CURE trial. Costs for the intervention and the defined events were collected from published sources and recalculated to 2003 prices. Life-years gained were used as the measure of effectiveness, with QALYs gained as a sensitivity analysis. The perspective was that of the Swedish society with a separate analysis using a health care cost perspective. Costs and effects were discounted at 3%. **RESULTS:** The model predicts a net gain in survival of 0.04 years when adding clopidogrel. This comes at a net increased cost of 441€ if only direct costs are included. Including indirect costs, the net increase is reduced to 326€. The resulting cost-effectiveness ratio was 10,782€ and 7971€ per life-year gained for the different definitions of cost. Assuming a 0.1 reduction in utility following a MI, the cost per QALY gained was 6381€. Cost-effectiveness ratios were even lower in diabetics compared to non-diabetics. Results were robust to changes in discount rate and variations in unit costs. **CONCLUSIONS:** The predicted cost-effectiveness ratios are well below the threshold values generally considered cost-effective. Adding clopidogrel to ASA thus appears cost-effective in this indication.

PCV11

COST EFFECTIVENESS OF ADDING NIASPAN TO ATORVASTATIN TREATMENT IN THE SECONDARY PREVENTION OF CARDIOVASCULAR DISEASE IN PATIENTS WITH DYSLIPIDEMIA IN THE UK

Berger W[1], Roze S[2], Valentine WJ[2], Palmer AJ[2]
[1]Merck KGaA, Darmstadt, Germany; [2]CORE Center for Outcomes Research, Binningen/Basel, Switzerland

OBJECTIVES: High density lipoprotein-cholesterol (HDL-C) is inversely and independently associated with increased risk of cardiovascular disease (CVD). The importance of HDL-C as a risk factor for CVD is well accepted. We performed a modelling study to estimate the incremental cost per additional patient achieving target HDL-C (≥1 mmol/L) when Niaspan (extended release niacin) is added to stable statin therapy in CVD patients from the perspective of the National Health Service in the UK. **METHODS:** A 3-step probabilistic model was developed. Step 1: population of 10,000 patients with a normal distribution of lipid profiles defined by mean and standard deviation was created. Step 2: treatment effects of atorvastatin 10 mg were applied to the population and those whose low density lipoprotein-cholesterol (LDL-C) was satisfactory (≤3.0 mmol/L) but did not reach target HDL-C (≥1.0 mmol/L) received treatment with Niaspan. Step 3: treatment effects of Niaspan were applied in patients. Baseline lipid values and treatment effects were randomly sampled from distributions drawn from published epidemiological and clinical studies using second order Monte Carlo methodology. Cost for drugs and initiation of Niaspan treatment were taken from published sources. Results were presented for the initiation year, taking into account initiation costs and drop-outs, and maintenance year scenarios. **RESULTS:** In total, 16.3% of patients required Niaspan in addition to atorvastatin treatment to control dyslipidemia. Of these patients, 29.4% and 36.7% reached target HDL-C after addition of Niaspan in the initiation and maintenance years respectively. Additional costs in Niaspan treated patients were £320.30 and £252.30 for initiation and maintenance years respectively, leading to incremental costs of £1089 and £687 per additional patient achieving HDL-C target. **CONCLUSIONS:** The additional costs per patient treated to HDL-C target by adding Niaspan to statin therapy are comparable to those reported in the literature for treating patients with statins to LDL-C or total cholesterol targets.

PCV12

SECONDARY PREVENTION AFTER PCI: THE COST-EFFECTIVENESS OF FLUVASTATIN THERAPY IN THE NETHERLANDS

Chaplin S[1], Scuffham P[1], Alon M[2], Boom van den G[2]
[1]University of York, York, UK; [2]Novartis Pharma, Arnhem, The Netherlands

OBJECTIVES: Little is known about the cost-effectiveness of secondary prevention after percutaneous coronary intervention (PCI). Aims of this study are to estimate 1) the cost-effectiveness of routine fluvastatin therapy after a first successful PCI in The Netherlands, and 2) the chance that fluvastatin therapy is cost-effective given a society's willingness to pay as laid down in Dutch guidelines. **METHODS:** A cost-effectiveness analysis was performed using data from the Lescol Intervention Prevention Study (LIPS). In the LIPS trial, patients with normal blood cholesterol to moderate hypercholesterolemia who had undergone a first PCI were randomized to receive either fluvastatin 40 mg twice-daily plus dietary counseling or dietary counseling alone. A Markov model (DataPro) was used to estimate the incremental costs per quality-adjusted life year (QALY) and life year gained (LYG). Costs were based on prices and reimbursed charges, utility data were drawn from literature. Hospital costs (admissions and procedures) were extracted from a database with complete national coverage. 10,000 Monte Carlo simulations and multivariate analysis were used to assess (2nd order) uncertainty. **RESULTS:** The mean net incremental costs of routine statin treatment were 734€ (SD: 686€) per patient over 10-years compared with controls. Treatment resulted in an incremental 0.078 (0.047) QALYs or 0.082 LYG (0.041). The incremental cost per QALY and LYG were 9312€ (14,648€) and 8954€ (16,617€) respectively. The sensitivity analysis revealed that the cost of fluvastatin and the discount rate had the largest effect on the ICER. Anticipating a willingness to pay of 20,000€ per QALY, there is a 75.1% chance that fluvastatin treatment is cost-effective. **CONCLUSIONS:** Statin therapy with fluvastatin

is economically efficient with regard to reducing heart disease in The Netherlands when given routinely to all patients following PCI.

PCV13

ECONOMIC ASSESSMENT OF EZETIMIBE CO-ADMINISTRATION IN A HUNGARIAN CHD PATIENT COHORT NOT AT CHOLESTEROL GOAL ON SIMVASTATIN MONOTHERAPY

Hoffer G[1], Yin D[2], Alemao E[2], Nagy L[3], Monori M[4], Davies GM[5], Cook JR[5]

[1]University of Debrecen, Debrecen, Hungary; [2]Merck & Co, Whitehouse Station, NJ, USA; [3]MSD Hungary Kft, Budapest XII, Hungary; [4]Schering Plough, Budapest, Hungary; [5]Merck & Co., Inc, Blue Bell, PA, USA

OBJECTIVE: To assess cost-effectiveness of ezetimibe 10 mg (EZ10) co-administration with simvastatin versus a simvastatin dose titration strategy in CHD patients who do not attain cholesterol goal (TC < 5 mmol/L) with simvastatin monotherapy. METHOD: A decision-analytic model was developed to project lifetime costs and benefits of lipid therapy. Clinical trial data were used to estimate TC reductions for different treatment strategies. The effect of TC reductions on CHD event rates was estimated using Framingham equations and Hungarian National Statistics data on nonCHD-related mortality. Direct costs of CHD events in Hungary, Hungarian prices for simvastatin and EZ 10 price (based on German EZ10 price) were used to project lifetime costs. The model was run for a population consisting of 138 CHD patients who are currently treated with simvastatin in an observational Lipid Lowering Treatment study conducted in Hungary, and had not reached goal at the TC measurement after minimum 60 days of treatment. **RESULTS:** For these patients (mean age 62.9 years, 51% male, lipid profile on simvastatin LDL-C 3.55 mmol/l, TC 5.99 mmol/l, HDL 1.44 mmol/l, triglycerides 2.40 mmol/l), EZ10 co-administered with simvastatin compared to simvastatin titration is projected to increase life expectancy by 0.69 years with a discounted C/LY of 14,891€ and the discounted C/QALY's of 14,827€. **CONCLUSIONS:** Treatment with EZ10 co-administered with simvastatin for CHD patients not at goal is projected to be a more cost-effective alternative to simvastatin titration which is substantially under the limit C/LY of 30,000€.

PCV14

AN ECONOMIC ANALYSIS OF CATHETER ABLATION FOR THE TREATMENT OF VENTRICULAR TACHYCARDIA

Reyes C[1], Hernandez J[1], Duff S[2], Knight T[2], Calkins H[3]

[1]Boston Scientific, San Jose, CA, USA; [2]Covance Health Economics & Outcomes Services, Gaithersburg, MD, USA; [3]Johns Hopkins Hospital, Baltimore, MD, USA

OBJECTIVES: Numerous clinical studies have demonstrated the safety and effectiveness of radiofrequency catheter ablation for treatment of ventricular tachycardia (VT). The objective was to evaluate the cost effectiveness of catheter ablation relative to drug therapy to treat frequent recurrence of VT among patients with structural heart disease. **METHODS:** We calculated the incremental cost effectiveness of catheter ablation relative to daily amiodarone treatment over various time horizons up to 5 years using a decision analytic Markov model (DATA 4.0™, TreeAge Software Inc.). Costs were based on a third party payer's perspective using 2004 Medicare reimbursement schedules and discounted average wholesale drug prices. Model parameters, adverse event rates, and utility weight estimates were obtained from randomized clinical trial literature and expert opinion. Costs and effects were discounted at 3% annually and sensitivity analyses were performed. The model analyzed the outcomes and resource utilization of a hypothetical cohort of 10,000 patients with structural heart disease and implantable cardioverter-defibrillators who experience frequent VT episodes. **RESULTS:** Ablation consistently produced greater quality adjusted life years (QALYs) compared to amiodarone in analyses of 1 to 5 years. The incremental QALYs of ablation relative to amiodarone at 1,2 and 3-years are 0.477, 0.82 and 1.05. The average 1, 2, and 3-year costs for ablation ($14,000, $14,760, $15,330) are higher compared to amiodarone ($10,760, $12,870, $14,760). However, over a 5-year time horizon, the average cost of ablation is less than amiodarone. The incremental cost-effectiveness ratio of ablation relative to amiodarone decreases from $81,340 at 1 year to $6392 at 3 years. By 3.6 years, ablation dominates amiodarone. **CONCLUSIONS:** Catheter ablation treatment of VT becomes increasingly cost effective compared to drug therapy as the time horizon increases and after 3.6 years, ablation is less costly and more effective than amiodarone therapy.

PCV15

COST-EFFECTIVENESS OF LOSARTAN IN PATIENTS WITH HYPERTENSION AND LVH IN SPAIN: AN ECONOMIC EVALUATION BASED ON THE LIFE TRIAL

Ruilope LM[1], Burke TA[2], Carides GW[3], Nocea G[4]

[1]Hospital 12 de Octubre, Madrid, Spain; [2]Merck & Co, Inc, Whitehouse Station, NJ, USA; [3]Merck Research Labs, Blue Bell, PA, USA; [4]MSD Spain, Madrid, Spain

OBJECTIVES: LIFE was a double-masked, randomized trial of losartan vs. atenolol in 9193 patients with essential hypertension and LVH ascertained by electrocardiography. Losartan reduced the primary composite endpoint of cardiovascular death, myocardial infarction, or stroke by 13% ($p = 0.021$) and reduced the risk of stroke by 25% ($p = 0.001$), despite a similar degree of blood pressure control. Our objective was to assess the cost-effectiveness of losartan compared with atenolol in hypertensive patients with LVH, from the perspective of the Spanish Health Care system. **METHODS:** Losartan and atenolol utilisation within the trial period and lifetime direct medical costs following a stroke in Spain were combined with estimates of reduction in life expectancy following stroke. The cumulative incidence of stroke and study medication utilization after 5.5 years of patient follow-up were separately estimated, adjusting for baseline degree of LVH and Framingham risk score. To estimate per patient lifetime stroke costs, we multiplied the cumulative incidence of stroke by the lifetime direct medical cost attributable to stroke. All costs and benefits are in 2004 Spanish prices discounted at 3% annually. **RESULTS:** Losartan reduced stroke-related cost by 270€ per patient due to a lower cumulative incidence of stroke at 5.5 years (4.9% vs. 6.5%; $p = 0.003$). Net costs were 1626€ higher per patient over 5.5 years for losartan compared with atenolol. The number of life-years gained (LYG) by preventing a stroke was 5.6 years, resulting in 0.090 (discounted) LYG per patient with losartan. The estimated cost per LYG for losartan was 18,147€ (95% CI: 10,127, 46,724) which is well within bench-mark values (30,000€/LYG) for accepted cost effective interventions in Spain. The probability of the cost-effectiveness ratio falling below a threshold of 30,000€/LYG was 0.88. **CONCLUSIONS:** Treatment with losartan compared with atenolol over a 5.5 year period is, based on the cost per LYG, a cost-effective intervention in Spain.